

Utah Tech University  
Natural Science  
Museum  
Pest Management



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## Common Pests

### **Dermeestid Beetles:**

Dermeestid beetles are a common pest in taxidermy mounts and preserved animals. Dermeestid beetle adults are 2-5mm in length and oval in shape. Their coloring is typically dark brown to black with some species having patterns to their coloring. Immatures are hairy and regularly shed their exoskeleton as they grow. Immatures are very mobile and will go looking for food. Growth rate is dependent upon temperature and quality/quantity of food.

It is critically important to regularly check all cabinets/shelves and specimens on display for adults, immatures, and or immature sheds. Over the years this museum has existed, dermeestid beetles have been a regular pest and have completely wiped-out portions of this collection.



**Moth Fly** – Minute (4-5mm) brown to black fly. Wings are large and covered in hairs. Will typically be found in or around the sink drains. Immatures are larvae ~9.5mm long but rarely seen as they are down in the drains feeding on slime.



## Blattodea (cockroach)

**American cockroach** – In our area it is typically an outdoor roach that will be found in landscape valve boxes, under rocks, and vegetation litter. They are most active at night wandering the area looking for food. These roaches have flattened bodies which allows them to enter through cracks and crevices. The American cockroach usually is not looking for a place to live when found in our museum. They are there because they were searching for food, found a crack or crevice that led inside and couldn't find their way back out.



**German Cockroach** – Readily inhabits anywhere humans populate. Small in size  $\sim 1/2'' - 5/8''$  with two stripes on the thorax behind the head. Stripes show up in later immatures to adults. Difficult to control once established and have been known to spread disease and shed exoskeletons cause allergic reactions in some people. Almost anything with some nutritional value will be a food source.



## **Gryllidae – Crickets**

Roaming crickets in the museum will most likely come from purchased crickets for food that have escaped their container or were lost while feeding the museums live animals. However, every so often an outside cricket finds it's way in. Do not feed these to the museums animals as they may be carrying something that can make our animals sick or kill them.



### **Management:**

The natural science museum uses an Integrated Pest Management (IPM) approach. IPM, integrates a broad approach to pest management through non-chemical and chemical practices.

The first step to our pest management is exclusion. Any entry/exit doors to museum need to have functioning door sweeps. Door sweeps need to be properly installed to eliminate gaps between door and the floor preventing access. The space between door jams and doors needs to be seated tightly or sealed with weather stripping to prevent cracks and access around the door.

Storage cabinets need to be regularly inspected to insure proper closing and tight seal. Any cabinet that is not sealing properly needs to be addressed immediately.

Active No Pest Strips need to be regular replaced in storage cabinets. Follow directions on No Pest Strip package for replacement interval and use. Record when replaced.

### **Monitoring:**

Daily and weekly monitoring needs to be conducted. Daily visual inspection of the floors, counter tops, shelves, and sinks needs to be conducted and recorded. When inspecting, look for pests and signs of pests. Signs may include but are not limited to sheds, frass, dead immatures/adults, powder piles under specimens.

Weekly inspection of door sweeps, seals, cabinet doors/seals, and individual shelves in cabinets needs to be conducted and recorded.

**Action:**

When evidence of pests is found action needs to be immediate. Any live adult/immatures need to be collected and either released outside or killed and thrown out. Inspections need to be conducted to determine entry point and access should be sealed off. If no obvious point of entry is found then vigilant monitoring needs to take place. It is possible that pest entered during operating hours while door is open or has entered through the air duct.

In storage cabinets, if evidence of pests is present such as dermestid beetle sheds, larvae, or adults, that cabinet contents need to be carefully wrapped in plastic bags and placed in freezer for 3-7 days. After specimens have been placed in freezer, cabinet needs to be vacuumed and cleaned with a new No Pest Strip placed in cabinet. Record date, pest type, and treatment.

**Sources:**

<https://extension.colostate.edu/topic-areas/insects/carpet-beetles-5-549/>

<https://museumpests.net/wp-content/uploads/2015/03/Fact-Sheet-Drain-Fly.pdf>

Photo credit: Adult- Steven Bren. <http://bugguide.net/node/view/308138/bgimage>

<https://entnemdept.ufl.edu/creatures/urban/roaches/german.htm>

[https://extension.usu.edu/pests/upddl/files/factsheet/crickets\\_08.pdf](https://extension.usu.edu/pests/upddl/files/factsheet/crickets_08.pdf)

<https://museumpests.net/identification/identification-pest-fact-sheets/>









